

ABSTRACT

The battery includes a cathode and an anode. The anode has a first medium that includes a first active material. The anode also has a second medium including a concentration gradient of a second active material. The battery also includes an electrolytic solution in contact with the 5 cathode and the anode. In some instances, the first medium is positioned so as to protect at least a portion of the second medium from the electrolytic solution. The first medium can also be selected so as to dissipate during discharge of the battery. The first medium can be configured to dissipate enough that one or more of the protected regions of the second medium become exposed to the electrolytic solution during the discharge of the battery.